KANATI TEK

DIGITAL GAME CALLING SYSTEM

CX & PX Series

Owner's Manual

Web Revision B

Introduction

Thank you for purchasing the Kanati Tek Digital Game Calling System.

Product Registration

If you purchased your Kanati Tek product at the Kanati Tek online store, the product was automatically registered so the product registration is complete.

If you purchased your Kanati Tek product at a retailer other than the Kanati Tek online store at www.KanatiTek.com, then product registration by mail is required. This can be accomplished by completely filling out the registration form on the back cover of this manual, and sending in a photocopy of this form with a photocopy of the original sales receipt within 30 days of the purchase date. The address is on page 36 of this manual.

Contact Kanati Tek

Contact Kanati Tek support with questions regarding the use of this product at: www.KanatiTek.com Fill out the Contact Us form and place your question in the Body part of the message form. Be sure to put the phrase "Support Question" in the Subject box of the form.

SAFTEY PRECAUTIONS:

1. Never operate the game call indoors or point the speaker directly at any person. These products are extremely loud and can cause hearing damage if used improperly.

2. Remove the battery or batteries from the game call unit before charging. Charge the battery or batteries in a location away from flammable materials, open flames, personal property or persons. Never leave any charging battery and charging equipment un-attended!

3. Remove the batteries or battery from the charging device as soon as the charge cycle is complete.

4. Keep all Kanati Tek products away from children and pets.

Table of Contents

Introduction……1
- Product Registration…….. 1
- Contact Kanati Tek…… 1
- Safety Precautions……. 1
- Table of Contents…….. 1

Getting Started.....2
- Step 1: Unpack & Check... 2
- Step 2: Charge Batteries... 2
- Step 3: Install Batteries…..2
- Step 4: System Parts…….. 3
- Step 5: Powering Up……..5
- Step 6: Play a File……..6

File Control……..7
- The Kanati File System…. 7
- Folder & File Selection…..7
- Pause / Play..……..8
- Last File Recall…….. 8

Volume Control.....9
- Volume Up/Down……..9
- Mute…….....….9
- SET V Steps……...9
- Balance Control…..... 9

Presets…….. 11
- What Is Saved…….....11
- Saving to a Preset…….....11
- Recalling a Preset…….. 11

Kanati Effects..... 12
- The Kanati Effect…..... 12
- Applying Effects..... 12
- Cancelling Effects……. 12
- Effect Descriptions……12

Auxiliary Outputs....15
- Outputs..... 15
- Decoy Fast / Slow…..... 16

Appendix……..17
- Speaker Connections…....17
- Address Programming…...17
- Maximizing RF Range.....18
- FCC Statement…….. 19
- Storing the Call……..19
- Troubleshooting……..... 20
- Limited Warranty…….. 21
- Legal Statements……... 21

Getting Started

This section is a quick start guide for your Kanati Tek CX or PX model Digital Game Calling System. Refer to the sections following this Getting Started section as they provide more detailed user information.

Step 1: Unpack & Check

1. Remove Your New Unit from the package
2. Open the Receiver case and remove any packaging materials from the inside.
3. On the larger PX series the remote and smaller accessories will be packed inside the receiver unit.
4. Check Package Contents. See the following chart for your model and the "Standard" included parts:

All CX Series	
Qty	**Item**
1	Receiver Base Unit
1	Remote Transmitter
1	USB Flash Drive / 35 Free Sounds Loaded
1	Printed Users Manual
1	Tether & Unit Stand

Model PX-1	
Qty	**Item**
1	Receiver Base Unit
1	Remote Transmitter
1	USB Flash Drive / 35 Free Sounds Loaded
1	Decoy Servo Motor
1	Machined Motor Coupler
1	Kanati Decoy Topper
1	Topper Rod Set
1	8 Cell Battery Holder
1	Printed User Manual
1	Internal HQ Speakers

Model PX-2	
Qty	**Item**
1	Receiver Base Unit
1	Remote Transmitter
1	USB Flash Drive / 35 Free Sounds Loaded
2	Decoy Servo Motor
2	Machined Motor Coupler
2	Kanati Decoy Toppers
1	Topper Rod Set
1	12V SLA Battery
1	External Battery Charger
1	Printed User Manual
2	Internal HQ Speakers

Note: Optional accessories are not listed in the previous charts. If you ordered options check for those ordered parts at this time.

Step 2: Charge the Batteries

1. Battery charging method used will depend on the model purchased.

2. For CX & PX-1 models, charge individual AA cells in the optional Charger / Analyzer system. Kanati # KTBK1

3. For PX-2 & PX-3 Models use the supplied dual stage 12V battery charger.

4. **WARNING: OBSERVE POLARITY MARKINGS AND COLORS WHEN INSERTING BATTERIES IN A CHARGER OR PLACING CLIP LEADS ON BATTERY TERMINALS AND NEVER LEAVE OPERATING BATTERY CHARGERS AND BATTERIES UNDER CHARGE UN-ATTENDED!!

5. For instructions on each charger type follow the supplied charger manufacturer's instructions.

Step 3: Install Batteries

1. On all models switch the receiver power switch to the off position (0).

2. On CX and PX-1 models install the individual AA cells in the receiver battery tray(s) in the proper direction

3. On PX-2 and PX-3 models install the 12V sealed lead acid battery in the case locking it in place with the supplied Velcro strips. Connect the leads: Red to the (+) positive terminal and brown or black wire to the (-) negative terminal.

4. Remove the battery cover on the transmitter. Install the battery(s) in the battery tray in the proper direction. Replace the battery cover.

5. ***WARNING: NEVER MIX DIFFERENT BATTERY TYPES OR BATTERY MODEL NUMBERS IN THE SAME UNIT. THIS WILL CAUSE DAMAGE AND VOID THE WARRANTY!

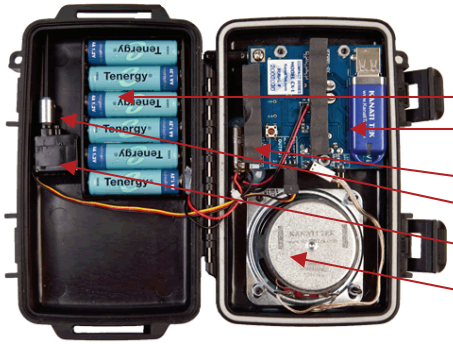
Step 4: System Parts

CX Series Receiver (External)

- Receiver Antenna
- Receiver Status LED
- Receiver Power Switch
- Decoy Output Jack
- Right External Speaker
- Left External Speaker
- Internal HQ Speaker
- Heavy Duty Case
- Tethered Unit Stand

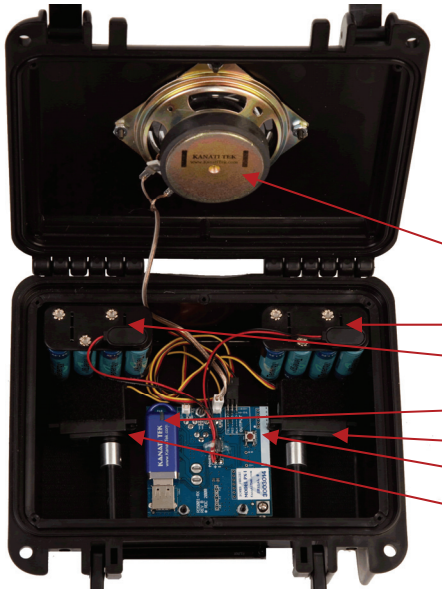
PX-1 Receiver (External)

- Decoy Rod & Topper
- Receiver Antenna
- Power Switch
- Receiver Status LED
- Decoy Output Jack
- Right External Speaker
- Left External Speaker
- Heavy Duty Case
- Internal Speaker (Back)



CX Series Receiver (Internal)

- Battery Tray
- USB Key Memory
- Program Button
- Motor Coupler (Option)
- Decoy Motor (Option)
- Internal HQ Speaker

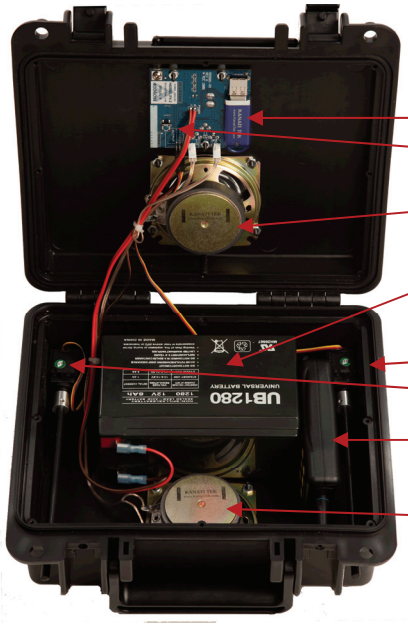


PX-1 Receiver (Internal)

- Internal HQ Speaker
- Battery Tray 1
- Battery Tray 2 (Option)
- USB Key Memory
- Decoy Motor 1
- Program Button
- Decoy 2 Motor (Option)

PX-2 Receiver (External)

- Decoy Rod & Topper 1
- Decoy Rod & Topper 2
- Receiver Antenna
- Power Switch
- Receiver Status LED
- Decoy Output Jack
- Right External Speaker
- Left External Speaker
- PX-2 Internal Speaker 1
- PX-2 Internal Speaker 2 (Back)



PX-2 Receiver (Internal)

- USB Key Memory
- Program Button
- Internal HQ Speaker 1
- 12V Sealed Battery
- Decoy Motor 1
- Decoy Motor 2
- Remote Control and Decoys Fit Inside
- Internal HQ Speaker 2

All CX and PX Series Models
Receiver Control Panel

- Receiver Status LED
- Power Switch
- Decoy Output Jack
- R External Speaker Jack
- L External Speaker Jack

All CX and PX Series Models
RF Transmitter Control

- Transmitter Antenna
- Large Numeric & Shifted Functions Keys
- Remote Status LED
- Power On/Off & Function Shift Key
- File Folder Select Key
- Volume Control Keys
- Pause / Play Key
- Field Lanyard
- User Friendly Color Coded Keys

All CX and PX Series Models RF Transmitter Control

All CX and PX Models Transmitter Keys Detail:

II/▶ OUT2	-Pause / Resume -Out 2 On/Off
MUTE	-Volume Down - Mute
SETV	- Volume Up - Set V Mode Select
FLDR OUT1	-Folder View/Select -Out 1 On/Off
FN ON / OFF	-Function Mode -Hold for 4 seconds to Power On/Off

0 PROG	-Numeric 0 -Transmitter Address Program Mode Select
1 EFFECT	-Numeric 1 -Effect Mode Select
2 BALANCE	-Numeric 2 -Balance Mode Select
3 SAVE	-Numeric 3 -Preset Save Mode Select
4 P1	-Numeric 4 -Preset 1 Recall -Preset 1 Save
5 P2	-Numeric 5 -Preset 2 Recall -Preset 2 Save
6 P3	-Numeric 6 -Preset 3 Recall -Preset 3 Save
7 P4	-Numeric 7 -Preset 4 Recall -Preset 4 Save
8 P5	-Numeric 8 -Preset 5 Recall -Preset 5 Save
9 LAST	-Numeric 9 -Recall last played file and play it

Step 5: Powering Up.

1. Open the receiver and insert the USB memory key in the receiver circuit board USB port. The key must contain all 100 sequentially numbered (000-099) sound files on it.

NOTE: For more information see "The Kanati Tek File System" in the "Files" section of this manual.

2. Install a fully charged set of batteries in both the receiver and transmitter units in the proper direction.

3. Toggle the power switch on the receiver from Off to On. Following a short power up sequence the receiver LED should stay on solid. See the following figure.

4. If the Receiver Status LED does not stay on solid, then the LED should be flashing a code that can be referenced in the Troubleshooting section of the Appendix.

Note: If the Receiver LED is flickering quickly while it is not receiving a transmitter signal, and the flashes are not at a rate indicating a trouble code described in the troubleshooting section, then this is a warning indicating LOW RECEIVER BATTERY VOLTAGE. Charge the batteries as soon as possible.

5. Power up the transmitter by holding the "FN" key for approx 4 seconds.

6. When the "Transmitter Status" lights solid green you are ready to go!

Kanati Tip!: Whenever the transmitter is sending data to the receiver this LED will flash and if the receiver is receiving this information the receiver status LED will flash too! A flashing receiver LED when no transmitter button is pushed, indicates a low receiver battery.

Step 6: Playing a File!

Kanati Tip!: No sequence on the transmitter ever requires two buttons being pushed at once. Never push two buttons at once for any reason, unpredictable results may occur!

1. A file must be selected before any other functions are active on power up.

2. There are 10 files numbered 0-9 stored in Folders numbered 00-09. That is 100 files total.

3. To play File 0 in Folder 0: First select Folder 0 by pressing and releasing the "FLDR" key, then press and release the 0 key. To play file 0, hold the "0" key until you hear the file you have selected start playing. Here is the simple sequence:

4. Now that you are in Folder 0, to play another one of the ten files in the current Folder 0 simply press and hold that key number. It is not necessary to re-select Folder 0.

5. So to play File 5 in the current Folder 0, just press and hold 5 to send the play File 5 in Folder 0 command to the receiver.

6. Now to play File 7 in the current Folder 0, just press and hold the 7 key until you hear the selected file start playing.

7. Let's change folders and play File 58. That is Folder 5 File 8. It is this easy!!

8. Now to play file 52 just press and hold 2. Remember you are currently in Folder 5 so a folder change is not needed.

File Control

This section is the start of more detailed sections regarding the operation of your Kanati Tek CX or PX series game call. This section covers the Kanati Tek file system, folder and file selection in the field with your Kanati Tek remote, file control such as Play and Pause commands, and finally how to recall the last file played by the system.

The Kanati Tek File System

The Kanati Tek file system is setup in a simple File Folder system.

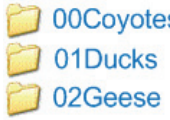
Maximum Number of Files:
The CX and PX series of Kanati Tek calls capable of storing and recalling up to 100 files. In a maximum of 10 Folders of 10 Files each.

File Names & Length:
Are best kept short as possible and must contain a leading 3 digit numeric value as 000-099. All files must contain a compatible file extension such as .mp3 or .wma and must be at least 5 seconds in length.

Compatible File Name:
005CoyoteHowl.mp3
Incompatible file name:
CoyoteHowl.mp3

Folder Names:
Folder names must also have a 2 digit leading number in the name of 00-09.

Compatible Folder Name:

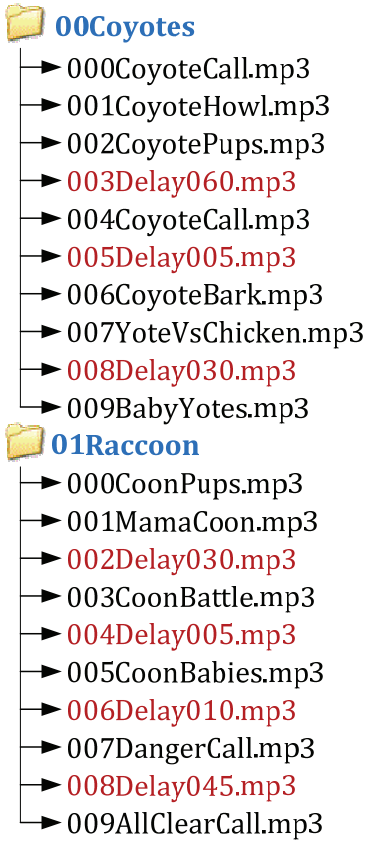


Incompatible Folder Names:

Setting Up the Files:
The system files must be put in groups of 10 in the ten folders. You may use windows explorer to do this directly or to make it easy, use the "Kanati Tek Folder Manager" freeware included with your call. The software install executable file is located on the USB key included with your purchased call. As an alternative this freeware may be downloaded from the Kanati Tek store, go to the Downloads link at:

www.KanatiTek.com

File Setup Continued:
A file name cannot be left empty in any folder. If you don't wish to use a particular file in a folder the xxxDelayttt.mp3 file must be put in its place, where xxx equals the file number to be left blank and ttt equals the time delay file length in seconds. Example Folder/File Setup:



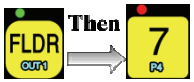
Notice in the 00Coyote folder example files 003, 005, and 008 are unused so a delay file must be put in its place. The same is true for the 01Raccoon folder example where files 002, 004, 006, and 008 are to remain unused.

Delay Files: The time delay of the delay files is typically used during Folder Sequencing while using Kanati Effect #1 Folder Repeat. For more detail see the "Kanati Effects" section of this manual.

Folder and File Selection

The Kanati Tek file and folder system was designed to provide the user with a simple, fast and effective way of playing files in any part of the call's memory in an instant in the field.
This call is capable of storing 10 sets of files numbered 000-099 stored in Folders numbered 00-09, 100 files total.

Selecting a folder: To select a new operating folder, first push and release the "FLDR" button, the FLDR LED will light. Now you have 5 seconds to push a numeric key 0-9 to select a folder 0-9.



At the point in which the FLDR LED starts to flash 3 seconds have passed and you now only have 2 seconds before the folder selection mode exits.

Select and transmit a File:
Once a folder is selected the user may move though any file in the current operating folder with a single button push. For example if the call is currently playing file # 63, that is Folder 6 / File 3 and you wish to go to File # 61 then you only have to push and hold button 1:

With the call already operating in Folder 6 File #61 will play.

Changing to a New Folder and File:
It is as simple as combining the two functions. So the call is currently playing File #61 and you wish to go to File #13, that is Folder 1 File 3.
Do the following sequence:

That's it! Easy isn't it? Now try another one.
The call is currently playing File#13 and you wish to go to File #6. Which is Folder 0 / File 6.
Do the following sequence:

Now let's jump all the way up to File #84, which is Folder 8 / File 4.
Do the following sequence:

To View the Current Operating Folder:
At any time during the operation if you need to know which Folder number the call is currently operating in, just press the "FLDR" key to enter the Folder mode. The current operating folder will be displayed by lighting the LED on numeric keys 0-9 corresponding to the current operating Folder.
The display period is 5 seconds or until the "FLDR" key is pressed again to exit the Folder select mode.

Pause / Resume Playback

At any point during playback the system can be paused. This function pauses the playback of the file and shuts off the dual channel audio amplifiers to conserve battery power during pause.

Pause Playback: To pause press and hold the Pause / Resume key until playback stops, then release the key.

Resume Playback: To resume the file playback: Press and hold the Pause / Resume key until the file starts playing again, then release the key. The file will continue playing from the point at which the pause mode was entered.

Other commands that will resume playback:

- Any file selection command
- Any preset file recall

Last File Recall

This function is a handy function that allows the user to recall play the "Last" file played at anytime.

Last File Recall: To recall the file previously played

1. Press and release the Function ("FN") key.
2. The Left Green LED over the "FN" key will light.
3. Now press and hold the "#9 / Last" key until the file changes, then release the key.

The last file can be in another Folder or the same folder. If the last file is in another folder the system automatically changes the folder for you!

To go back:
1. Execute the "Last" function command again.

Try this several times until you will get the hang of it. Just remember to push the "FN" button first each time.

Volume Control

This section covers all of the features of your Kanati Tek digital calling system that relate to controlling the playback volume.

Volume Up /Down

This function controls the volume like the volume knob on a home stereo or car radio. By ramping the volume Up or Down as the volume Up or Down keys on the remote are held until the desired volume is reached.

Turning Up the Volume:
To increase the playback volume:
1. Press and hold the Volume Up arrow key during file playback until the desired volume level is reached.

Turning Down the Volume:
To decrease the volume:
1. Press and hold the Volume Up arrow key until the desired volume level is reached.

Mute Playback

This function causes the playback volume to go to zero but the file playback will continue. If you wish to stop playback use the Pause / Resume feature described in the previous section.

Muting:
To send the Mute command:
1. Press and release the "FN" key.
2. The left green LED should be lit over the "FN" key.
3. Now within 5 seconds press and hold the "Volume Down / Mute" key until you hear the volume go to zero.

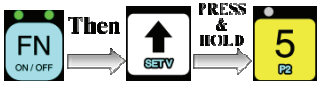
Un-Muting:
To send the Un-Mute command:
1. Press and release the "FN" key.
2. The left green LED should be lit over the "FN" key.
3. Now within 5 seconds press and hold the "Volume Down / Mute" key until you hear the volume go to pre-mute level.

"SET V" Volume

Kanati Tek understands that you will not always be close enough the receiver unit to hear what volume the playback is currently at. To solve this problem we have developed a volume preset feature we call "Set V". This breaks up the whole volume range of the system into 9 preset or known volume steps 1 – 9.

STEP	% Volume Level
0	9%
1	13%
2	28%
3	38%
4	47%
5	56%
6	66%
7	75%
8	84%
9	94%

Selecting a "Set V" step:
To select one of the 9 "Set V" steps enter the Function mode by pressing and releasing the "FN" key, the amber light should light over the "FN" key. Now within 5 seconds press and release the "Vol Up / Set V" key then press and hold a numeric key 1-9 until you hear the volume change.



Balance Control

Balance control provides the ability to control the volume to the Left and Right audio outputs independently. Useful in stereo files with two different sounds split over the left and right channels of the audio file. The user can select how loudly of each sound plays back by controlling the balance between the left and right channel.

Kanati Tip!: Setup commonly with two different animals battling. The user then controls the balance "to set the scene" of the battle.

The balance range:

Balance	Key
Full Left	1 EFFECT
Center (Default)	5 P2
Full Right	9 LAST

Setting Balance:
To set the system balance first select the Balance function mode, then a numeric value 1-9 corresponding to the table above. In this example let's set full left, so the left channel is at 100% volume and the right channel is at 0% volume.

Full Left:

Now try these balance levels:

Full Right:

Return to Center:

Now try moving the balance Left a step at a time:

Partial left step 1:

More left step 2:

Even more left step 3:

Full Left!:

Now try moving the balance Right a step at a time:

Partial right step 1:

More right step 2:

Even more right step 3:

Full Right!:

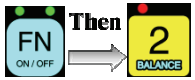
Now return the balance back to center:

Return back to center:

Viewing the Current Balance Level:

To view the current balance level during operation just put the unit into the balance function mode and the current balance level will be display on the numeric key LEDs 1-9.

Viewing Balance:



To exit the Balance Mode just press the “FN” key again.

Presets

This section instructs on how to save and recall presets as well as a full description of what is saved to and recalled from a preset memory location.

Presets are invaluable in the field. They are great tool to setup your favorite Kanati Tek call configuration at home before heading out into the field. These Presets are then available for recall, in an instant, when you need them.

What is Saved

- Folder & File Number
- The Last "Set V" Volume Level Executed
- Balance Selection
- Output States (Decoy Outputs)
- The Last Kanati Effect Executed

There are **5** Preset memory locations **P1 – P5** available for save or recall on buttons:

Note: You must execute a Set "V" Volume level before trying to save a Preset. Only a Set "V" volume level is saved in presets, not the variable master volume that is controlled with the UP and Down volume keys.

Saving to a Preset

To save the current call configuration to one of the 5 preset locations (P1-P5):

1. Enter the preset save mode by pressing and releasing the "FN" key
2. The left green LED should be lit over the "FN" key.
3. Press and release the numeric "3 / Save" key
4. Within 5 seconds press and release one of the 5 preset keys.

Here is the sequence:

Save to P1:

The Preset LED will flash to notify you of a successful save to this Preset location. The system then exits the Preset Save mode automatically and returns to the default File Display mode.

Now try saving to P2:

Save to P2:

That's all it takes to save the current operating configuration of your Kanati Tek call to Presets! Recalling is just as easy! See the following topic.

Recalling a Preset

Recalling one of the five presets available on your Kanati Tek system is as easy as pushing two buttons.

To recall any preset:

1. Press and release the "FN" button.
2. The left green LED should be lit over the "FN" key.
3. Then within 5 seconds press and hold one of the 5 preset buttons until you hear the new file start playing on the receiver. See the sequence below:

Recalling P1:

Now try recalling Preset 2:

Recalling P2:

That's all there is to Preset Save and Recall. To get more practice try saving and recalling a few more of your favorite call setups to P3, P4, and P5.

Remember to use SET "V" BEFORE SAVING A PRESET or else an unpredictable volume level will be saved!

See the previous section, "SET V" Volume, for more detail on the use of SET "V" volume levels.

Kanati Effects

This section describes the setup and use of another whole group of features of the Kanati Tek game calling system. Kanati Effects, or file effects.

The Kanati Effect

The Kanati Tek game calling system has an industry unique custom digital synthesizer that enables the user to apply different effects to the playback of a file. The effects and their numeric key assignments are:

KANATI EFFECTS

Key #	Effect Name
1	Folder Repeat
2	Fade Charge
3	Fade Retreat
4	360 Surround
5	Cancel Effects
6	The Wave
7	Bass Boost 1
8	Bass Boost 2
9	Treble Boost (Horn)
0	Decoy Fast / Slow

Applying Effects

To apply an effect during file playback:

1. Enter the Effect function mode by pressing and releasing the "FN" key
2. The Left Green LED above the "FN" should be lit
3. Press and release the numeric "1 / Effect" key
4. Press and hold the numeric key 1- 9 corresponding to the desired effect until you here the effect start. Refer to the previous Kanati Effects chart.

Below is an example sequence to apply Effect # 7 (Bass Boost 1):

Applying Effect #7:

Try another one.

Let's apply Effect # 9 (Treble Boost):

Applying Effect #9:

Canceling Effects

To cancel the active Kanati Effect and return to the normal playback state just apply Effect #5 (Cancel Effects):

1. Enter the Effect function mode by pressing and releasing the "FN" key
2. The Left Green LED above the "FN" should be lit
3. Press and release the numeric "1 / Effect" key
4. Press and hold the numeric "5"key until you hear playback return to a normal state.

Here is the sequence:

Cancel Effects:

Effect Descriptions

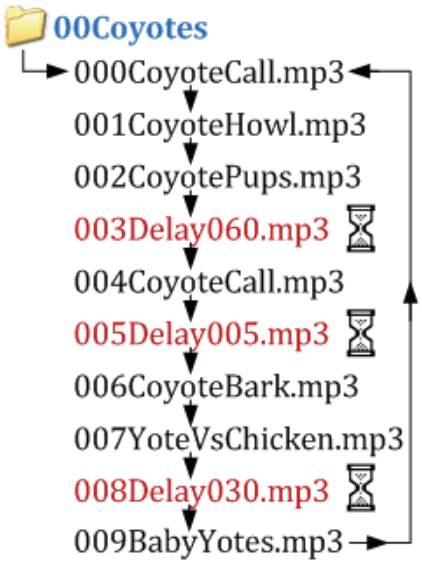
The rest of this section details each of the Kanati Effects available.

Effect #1 Folder Repeat:

This effect plays all 10 files of the currently active folder in a continuous loop.
This is a great effect for sequencing. Just place up to 10 sound files of your favorite sequence in a single folder and this effect will play though all the files in that folder automatically.

- **Which File to Start With?** The sequence can be started from any file in the folder. Just start playing the file you wish to start the sequence then select the Folder Repeat effect once the file starts playing. Folder Repeat always starts from the current playing file.
- **Jump** - At any point during the sequence play back, you can jump to a different file in the current folder by playing it and the sequence will continue from that file.
- **To Cancel** - Moving to a different folder or selecting Effect # 5 will cancel the folder repeat sequence.
- **Delay Files** – As shown in the following diagram, to insert delays between files in the Folder Repeat sequence, simply insert a preset delay file. These delay files are indicated in red in the following Folder Repeat Sequence Diagram.
  The delay length of the file is the second three digit number following the word "Delay" in the file name. For example the file 003Delay060.mp3 is a file that will play 60 seconds of silence. The shortest file possible is 5 seconds. These delay files are available for download in different delay periods on the Kanati Tek website.

FOLDER REPEAT SEQUENCING



Effect #2 Fade Charge & Effect #3 Fade Retreat:

This effect is a Left to Right (Charge) or Right to Left (Retreat) channel auto Fade function that when activated on a call with speakers operating on both the Left and Right channels operates as follows:

- Starts with the current balance level.
- Then automatically decreases the volume on the opposite channel while increasing the volume on the starting channel. Depending on the Charge or Retreat selection.
- Just as though someone is operating the balance knob on a stereo Automatically from the current operating balance level. Then turns the knob fully left or right depending on Charge or Retreat selection.

The difference between charge and retreat is only the channel Left or Right in which the function starts. The Left speaker channel for Charge and the Right speaker channel for Retreat.

To cancel:

These are "One Shot" functions. Meaning they execute one time then self cancel. There is no need to manually cancel these functions.

Note: Because these effects 2 & 3 self cancel after they finish, the remote LEDs will still display that Effect 2 or 3 is still active. To get the remote back in sync with the receiver, select Effect 5 at any time or another Effect # number after Effect 2 or 3 has COMPLETELY finished.

The Key Sequences:
Charge (Effect #2):

Retreat (Effect #3):

#4 - 360 Surround:

This effect will automatically fade the balance speaker volume between the right and left channels continuously.

- It makes it sound as though the animal is rotating or spinning around. If the speakers are positioned back to back or in a circular pattern.
- If 2 Speakers are used place them back to back
- If four speakers are used position them in a circular pattern alternating the Right and Left speakers as you go around the circle.
- There are two rates of the 360 Surround Effect slow and fast. Slow is selected by default to access fast just select Effect #4 again while Effect #4 is active. See the sequences below.

The Key Sequence:
360 Surround(Slow Effect #4):

Now to select Effect #4 Fast Rate just select Effect #4 again:

360 Surround (Fast Effect #4):

Note: When cancelling this effect, the system balance will return to center.

Effect #5 – Cancel Effects

This effect number is reserved as a command to any of the currently applied file effects and to return the call to a Normal playback mode.

The Key Sequence:
Effect Cancel (Effect #5):

Effect # 6 – The Wave

The wave effect varies the volume of both the left and right speaker outputs up and down together. The Wave is another way to put a unique twist on the playback of a file.

The Key Sequence:
The Wave (Effect #6):

Kanati Tip! : Believe it or not wildlife can become accustomed to some sounds they have heard too much. You can bring new life to some of the older sounds in your library by applying Kanati Effects to them when playing them.

Effect #7 – Bass Boost 1 & Effect #8- Bass Boost 2

Bass Boost sets the Kanati Tek custom digital equalizer to amplified bass and reduced treble for a deep rich low frequency playback.

- This is a good feature for the playback of a low frequency animal call such as a Bear or Elk.
- Great for built in cone speaker systems such as the PX series game calls.
- Bass Boost 1 play back at a medium bass level and Bass Boost 2 plays back at the maximum bass level.

The Key Sequences:
Bass Boost 1 (Effect #7):

Bass Boost 2 (Effect #8):

Effect #9 Treble Boost

This effect is the opposite of the Bass Boost effects above. This effect sets the Kanati Tek custom digital equalizer to amplify the high frequency Treble sounds and reduce or clip the low frequency Bass sounds.

- Used in high frequency animal calls such as birds and rodents.
- Great for external horn speakers. Horn speakers only tend to playback high frequency sounds, so by using treble boost the playback is optimally tuned for playback with horn speakers.

The Key Sequence:

Treble Boost (Effect #9):

Note: Treble boost is optimized for use with external Horn type speakers. Using it on internal cone speakers, that produce rich HQ bass frequencies, could degrade the perfomance slightly.

AUXILIARY OUTPUTS

This section describes how to use the auxiliary outputs, commonly known as Decoy Outputs. Kanati Tek plans on offering a whole line of products beyond just motorized decoys to be controlled by the two outputs. So we prefer to call them outputs.

OUTPUTS

The CX and PX series game calls come equipped with two outputs.

OUT 1: Operated through the external output jack OUT 1.

OUT 2: Operates the internal decoy on a single internal decoy system.

WARNING:

1. **NEVER CONNECT OR DISCONNECT OUTPUT DEVICES WITH THE RECEIVER'S POWER SWITCH ON. THIS WILL DAMAGE YOUR GAME CALL OUTPUT AND VOID THE CALL'S WARRANTY.**

2. **ONLY CONNECT KANATI TEK APPROVED AUXILIARY DEVICES. CONNECTING NON APPROVED DEVICES WILL DAMAGE YOUR GAME CALL AND VOID THE CALL'S WARRANTY.**

Connecting Kanati Tek Auxiliary Devices:

1. Shut off the Call Receiver power switch by toggling it to the "0" position
2. Connect only Kanati Tek approved auxiliary devices to the 3.5mm OUT 1 Jack.
3. See the following "Output Control" section below for output control procedures

Connecting Other Manufacturer's Decoys and Equipment:

To connect another manufacturer's equipment to a Kanati Tek Game Calling System you must use Kanati Tek part # OC-1 Output Converter (optional). The OC-1 converter may be purchased from the Kanati Tek Retail website at: www.KanatiTek.com

Consult the manufacturer's specifications for compatibility specifications regarding the use of the Kanati Tek OC-1 converter with their equipment.

OC-1 Output Ratings:
12 VDC Max
175 mA Max

For the electronics inclined:
Part # OC-1 Technical reference:
The OC-1 Output Converter is a PVT312LS FET IC. The OC-1 3.5mm 3 pin output jack pins Ring and Tip (Pin Sleeve of the 3.5 mm jack is not connected) are connected between pins 4 & 6 of the PVT312LS IC.

OUTPUT CONTROL

Both OUT 1 and OUT 2 can be controlled ON and OFF remotely on the Kanati Tek remote.

Turning OUT 1 ON:

1. Enter the Effect function mode by pressing and releasing the "FN" key
2. Press and hold the "FLDR / OUT 1" key until the output engages.

The sequence:

Turn Output 1 ON:

Turning OUT 1 OFF:

1. Enter the Effect function mode by pressing and releasing the "FN" key
2. Press and hold the "FLDR / OUT 1" key until the output disengages.

The sequence:

Turn Output 1 OFF:

Turning OUT 2 ON:

1. Enter the Effect function mode by pressing and releasing the "FN" key
2. Press and hold the "PLAY / OUT 2" key until the output engages.

The key sequence:

Turn Output 2 ON:

Turning OUT 2 OFF:

1. Enter the Effect function mode by pressing and releasing the "FN" key
2. Press and hold the "PLAY / OUT 2" key until the output disengages

The key sequence:

Turn Output 2 OFF:

Changing to Fast or Slow:

To apply a decoy speed effect:

1. Enter the Effect function mode by pressing and releasing the "FN" key
2. The Left Green LED above the "FN" should be lit
3. Press and release the numeric "1 / Effect" key
4. Press and hold the numeric key "0" until the decoy speed command takes effect

The key sequence is:

Changing Output Speed:

DECOY FAST/SLOW

Both OUT 1 and OUT 2 can output the decoy control signal at two different speeds. Note changing the speed control will affect both outputs OUT 1 and OUT 2. This is a toggling function just like using Play / Pause, by sending the same key again and again will toggle between decoy fast and slow. On receiver power up the system is always set to decoy fast mode.

APPENDIX

This is the final section of this user manual. It provides useful topics such as programming, troubleshooting, legal statements, and call specifications to further enhance your Kanati Tek Digital Game Call experience.

SPEAKER CONNECTIONS

The Kanati Tek CX & PX series digital game calls provide both a Left and Right output jack for connecting external speakers.

Kanati Tip!: For optimal power output on a single internal speaker system, when connecting a single external speaker connect to the opposite channel of the internal speaker.

To tell which channel the internal speaker is connected to see the next topic "Internal Speaker Connections".

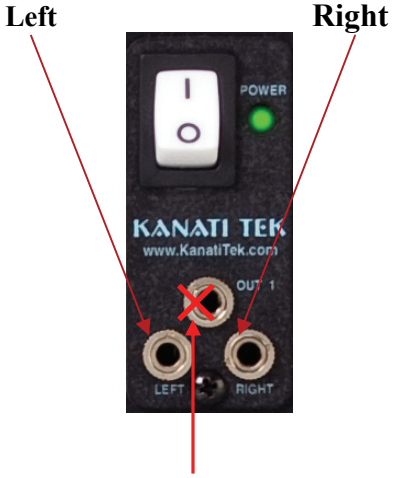
Internal Speaker Connections

Kanati Tek has engineered the CX or PX Series Game Calling Systems to provide the user a means of viewing or re-arranging the internal and external speaker configurations.

External Speaker Connections

Kanati Tek has also provided two external 3.5 mm speaker connection jacks on the Receiver Control Panel.

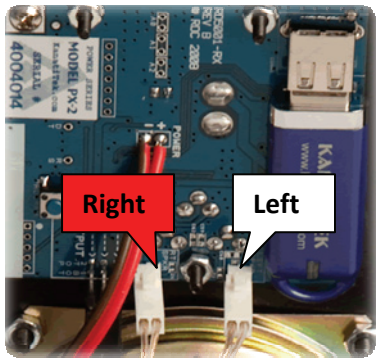
There is one connection for each of the Left and Right speaker output channels.



WARNING: NEVER CONNECT A SPEAKER TO THE AUXILIARY OUTPUT JACK AND TURN THE POWER ON! THIS WILL INSTANTLY DAMAGE THE AUXILIARY OUTPUT AND VOID THE CALL WARRANTY.

Arranging Internal and External Speakers:

1. Turn off the receiver power switch
2. Open the receiver unit
3. On the circuit board near the jack where the internal speaker connects, there are markings on the circuit board showing to connect the Left and Right channels.(See the Image Below)
4. Now connect the internal and external speaker(s) in any arrangement to meet your needs.
5. You must connect the speakers evenly between the Left and Right channels.
6. Never connect more than 2 speakers, counting both the internal and external speakers, per channel.
7. Speakers must be 8 Ohm



System Address Programming

The Kanati Tek CX & PX series remote control can be programmed to one of 9 remote addresses.
This allows up to 9 receiver addresses to operate in the same area without interfering with each other.

Controlling Multiple Receivers

The remote control address can be set right from the keypad! Why is this nice?
Because if you wanted to you could have up to 9 different CX or PX receivers at different points in the field set at 9 different addresses. Then by changing the remote address on the fly you could control all 9 receivers.

Setting the Remote Address:

1. Enter the Function mode by pressing and releasing the "FN" key
2. The Left Green LED above the "FN" should be lit
3. Press and release the numeric "0 / PROG" key
4. Press the numeric key 1- 9 corresponding to the desired Remote Address.

5. The system will blink the address you have chosen and then exits the Address Programming Function Mode automatically.
6. The system now has returned to the default file display mode.

Here is the key sequence to set the remote address to 3:

Set Remote Address to 3:

Now try and set the Remote Address to 1:

Set Remote Address to 1:

Viewing the Current Remote Address

If at any point you wish to view the current remote address setting. Just enter the remote address mode and the current address of the remote will be displayed by the numeric LEDs 1-9.
Here is the sequence

1. Enter the Effect function mode by pressing and releasing the "FN" key
2. The Left Green LED above the "FN" should be lit
3. Press and release the numeric "0 / PROG" key
4. View the Remote Address on LEDs 1-9
5. The system will exit automatically in 5 seconds or you can push the "FN" key again to exit without changing the Remote Address.

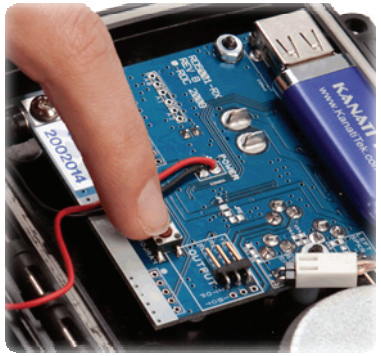
The system now has returned to the default file display mode.

Receiver Address Syncing (Set the Receiver Address)

The remote control address has to be synced with any receiver you wish to control. The receiver can be set address 1-9 the same as the remote address.

Here is the procedure to sync a remote address with a receiver:

1. Turn on the Remote Control and have the address to the value you wish to set this receiver to.
2. Open the receiver unit to gain access to the circuit board.
3. Turn on the receiver power.
4. Press and hold the Program Button located on the Receiver circuit board. (See the following image)



5. While holding the "Program" Button on the receiver circuit board, Press and hold the "Volume Down" arrow button on the Remote Control.

6. The receiver will now start flashing its status LED to let you know it has received and set the new address to match this remote.
7. The new receiver address indicated by the number of blinks on the status LED following the sync.
8. Repeat this procedure for any further receivers you wish to control with this single remote. Just remember to set a different remote address for each receiver before syncing.

Maximizing the RF Range

This section was developed by Kanati Tek RF Engineering to ensure you get the best RF range possible when using your Kanati Tek RF controlled product. These are basic rules that if followed will maximize the range of any RF controlled device.

Receiver RF Operation & Positioning Tips:

- Unfold the antenna to point straight up
- Position the receiver so the antennal is perfectly vertical when viewed from the side of the antenna at any angle.
- Position the receiver and its antenna so the antenna is the highest point on the receiver.
- Get the receiver and antenna at least 3' off the ground. The ground can cause any RF device to lose up to ½ of its RF operating range when the antenna is too close to the ground.
- Keep a clear line of sight between the transmitter and receiver.
- Keep the battery voltage maintained on both units.

Transmitter RF Operation & Positioning Tips:

The same basic rules apply to the Transmitter as they do on the Receiver (See the previous topic "Receiver Unit Antenna Positioning Tips")

When transmitting:

- Keep the antenna as vertical as possible
- Keep a clear line of sight to the receiving antenna
- Keep the transmitting antenna off the ground and away from obstructions
- Hold your arm straight keeping the antenna away from your body.
- Hold your hand lower on the remote away from the antenna.
- When sending a command to the receiver, press and hold the button sending the command until you hear the command take on the receiver unit, then let off of the button. The transmitter continuously sends the command as long as you hold the button.
- Keep the battery voltage maintained by keeping your transmitter's batteries charged up.
-

FCC STATEMENT

FCC ID: WVI-RDCTX1

IC: 8060A-TX1

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES AND WITH RSS-210 OF THE INDUSTRY CANADA. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:

(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE AND

(2) THIS DEVICE MUST ACCEPT INTERFERENCE RECEIVED, INCLUDING INTEREFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

Storing the Call

Storing 1 to 30 Days:

- On CX-1 remove at least one receiver battery cell
- On PX-1 Remove one or both battery clips from the receiver battery trays
- On 12 V Gell Cell battery powered units, remove the Red(+) battery terminal from the receiver battery
- Remove the transmitter battery cells

This prevents the batteries from going into a deep discharge state which will shorten the usable life of the battery or batteries.

Storing more than 30 Days

COMPLETELY REMOVE ALL THE BATTERIES FROM THE WHOLE CALLING SYSTEM.

Troubleshooting

Because of the quality and professionalism in which your Kanati Tek product was manufactured, most issues that arise where the system does not work correctly can be solved by carefully and completely reading following the instructions in this troubleshooting section.

Kanati Tek has taken great care to build in error capturing and reporting functions into our Game Calling System that when used along with this section, can assist you in diagnosing and fixing almost any problem that arises with your Digital Game Calling System.

Problem/Question	Solution/Answer
The receiver is powered up working properly and when I am NOT sending commands the receiver status light has a quick progressive flicker to it.	This is NOT a receiver trouble code. This is a **WARNING: RECEIVER BATTERY VOLTAGE IS GETTING LOW**. The receiver will still receive commands and play files, but you may consider stopping the use of decoys and reducing volume down to conserve power.
How can I tell if the transmitter is sending a signal?	The status light on the transmitter will blink when sending a command and the receiver status light should only blink when properly receiving a command.
How can I tell if the receiver is receiving the RF signal and commands?	The receiver status light should only blink whenever the receiver is getting a valid signal from the transmitter.
The transmitter status light is blinking when a command is sent at close range (less than 10 feet) but the receiver status light is not blinking.	-Make sure the receiver is powered on -Make sure the transmitter and receiver addresses are synced (they match). Refer to the "System Address Programming" section of this Appendix and set both addresses to the same channel.
When I power up the receiver, the status light just blinks and it won't receive commands.	-Use the following chart "Receiver Trouble Codes" and follow the instructions in that chart.
How can I test all of the transmitter (Remote Control) LEDs to make sure they are all working?	-The transmitter has a built in test feature that will scroll though all of the LEDs and light them one at a time. To execute this test remove the transmitter batteries and re-insert them, the test will start right away so flip it over and watch.
	….Table is continued on the following page
The transmitter will not turn on.	-Insert new batteries -Hold the "FN / On/Off" Key for 4 seconds until the transmitter status LED comes on -Pull the transmitter batteries and reinsert them in the proper direction, spring to the negative battery terminal.
The receiver will not turn on at all.	-Insert a fresh set of charged batteries -On models with AA batteries, make sure all batteries are inserted in the correct direction, spring to the negative (smooth) battery terminal -On models with the 12V Lead Acid Battery make sure the battery is connected properly and tight; Red wire to the + (positive) battery terminal and brown or black to the – (negative) battery terminal.
What if I am not getting enough RF range?	-All RF systems have limits and there are a lot of different reasons that the RF range will vary from place to place and day to day. To get the maximum RF range possible follow every step in the previous section, "Maximizing RF Range", of this Appendix.

Receiver Trouble Codes Table

The following table is to be used when the receiver has stopped working, and has started flashing one of the following codes followed by a 2 second pause then flashed the code again then continues this sequence over and over.

Code (# of flashes)	Problem
1	**Bad File Read –** During a file execute command the receiver could not find the file you requested. Make sure the file structure on the key matches the file structure and naming requirements of the system. See the "File Control" section.
2	**No Flash Drive Loaded –** No USB flash drive loaded was recognized on receiver power up. -Insert the flash drive key into the receiver board
3	**Invalid File Structure –** On power up the system has found an incompatible file structure loaded on the key. Make sure the file structure on the key matches the file structure and naming requirements of the "File Control" section.
4	**Battery Voltage Below Cut Off**

Legal Statements

Kanati Tek
A Division of
Research and Development Corporation

Herein referred to as RDC

1. **WARRANTY.** RDC warrants its products for a period of 1 year from date of purchase to be free from defects caused by faulty materials or poor workmanship. The liability of RDC under this warranty is limited to replacing, repairing, or issuing credit for any products returned by a purchaser during such period provided: (a) RDC is properly notified in writing addressed to its Sales Department upon discovery of such defects. (b) The defective products are returned to the RDC facility; transportation charges prepaid by the purchaser; and (c) Examination of the unit by RDC discloses to its satisfaction that such defects exist and have not been caused by misuse, neglect, improper installation, alteration, accident, transportation damage, or other events beyond the control of RDC. In no event shall RDC be liable for collateral or consequential damage of any nature. There is no other warranty, expressed or implicit, to the purchaser other than as to title. All warranties are only valid to the original purchaser registered on the Product Registration form. All warranties are non-transferable. Items not covered by this warranty, but not limited to, are: All batteries and charging equipment, decoy motors, toppers and rods.
2. **LOSS OR DAMAGE IN TRANSIT.** RDC assumes no liability for any loss, damage, or destruction of products after delivery is made to the carrier. Parcel post shipments will be insured only at the request of and at the expense of the purchaser. If the purchaser asserts any claim against RDC, it shall be done in writing within five days from the receipt of shipment.
3. **RETURNS.** All returns must be authorized in writing within 15 days of receipt of product by the Sales Department of RDC / Kanati Tek and shipment made prepaid to the RDC facility. No credit can be allowed by RDC for item(s) damaged in transit. All items returned which are not eligible for credit will be returned to the purchaser, transportation collect. A 15% restocking fee will apply.
4. **LIMIT OF LIABILITY.** Under no circumstances will RDC be liable to the purchaser for an amount in excess of the unit price of the products involved times the quantity invoiced.

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